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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,614	01/11/2002	Jay P. Hoefflinger	INTL-0664-US	9475
7590	12/23/2004			
Timothy N. Trop TROP, PRUNER & HU, P.C. STE 100 8554 KATY FWY HOUSTON, TX 77024-1805			EXAMINER NAHAR, QAMRUN	
			ART UNIT	PAPER NUMBER
			2124	
DATE MAILED: 12/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/044,614

Applicant(s)

HOEFLINGER ET AL.

Examiner

Qamrun Nahar

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is/are objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-30 have been examined.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: "Summary of the Invention" section is missing.

Appropriate correction is required.

3. The disclosure is objected to because of the following informalities: under the "Brief Description of the Drawings" section, description for figures 5A and 5B is missing. Furthermore, there is no figure labeled "Figure 5".

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-3, 10-11, 18-21 and 23-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 2, 10 and 23 recite the limitation "the address" in line 2 of the claims. There is insufficient antecedent basis for this limitation in the claims. Therefore, this limitation is interpreted as "an address".

Claims 3, 11, 24 are rejected for dependency upon rejected base claim above.

7. Claim 18 recites the limitation "the address" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim. Therefore, this limitation is interpreted as "an address".

Claims 19-21 are rejected for dependency upon rejected base claim above.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Poulsen (U.S. 5,812,852).

**Per Claim 1:**

The Poulsen patent discloses:

**- a method comprising: receiving a first program unit in a parallel computing environment having a team of parallel threads including at least a first and second thread, the first program unit including a memory copy operation to be performed between the first thread and the second thread (column 4, lines 62-67)**

- and translating the first program unit into a second program unit, the second program unit to associate the memory copy operation with a set of one or more instructions, the set of instructions to ensure that the second thread copies data based, in part, on a first descriptor associated with the first thread (column 4, line 67 to column 5, lines 1-20).

**Per Claim 2 (as best understood):**

The Poulsen patent discloses:

- further comprising copying an address of the first descriptor to a buffer and copying data into a memory area associated with the second thread based, in part, on address and data information associated with the first descriptor (column 5, lines 11-20).

**Per Claim 3 (as best understood):**

The Poulsen patent discloses:

- further comprising copying data into a memory area associated with second thread utilizing, in part, a second descriptor associated with the second thread (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claim 4:**

The Poulsen patent discloses:

- further comprising enabling the first thread to copy an address of the first descriptor to a buffer and setting a signal to enable the second thread to copy data associated with the first descriptor to a memory area associated with the second thread (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claim 5:**

The Poulsen patent discloses:

- further comprising enabling the first thread to enter a wait state after the signal is set (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claim 6:**

The Poulsen patent discloses:

- further comprising releasing the first thread from a wait state upon completion of the data copy operation by the second thread (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claim 7:**

The Poulsen patent discloses:

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- further comprising enabling the first thread to copy an address the first descriptor to one of two buffer areas (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claim 8:**

The Poulsen patent discloses:

- further comprising receiving the first program unit in source code format and translating the first program unit into a second program unit in source code format (column 8, lines 28-39).

**Per Claims 9, 10-11 (as best understood), 12-15 & 17:**

These are machine-readable medium versions of the claimed method discussed above (claims 1-8, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Poulsen.

**Per Claim 16:**

This is a machine-readable medium version of the claimed method discussed above, claim 3, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, this claim is also anticipated by Poulsen.

**Per Claim 18 (as best understood):**

The Poulsen patent discloses:

- a method comprising: receiving a first program unit in a parallel computing environment and translating the first program unit, in part, into one or more computer instructions, the instructions enabling a second thread in a team of threads to copy data, into a memory area associated with the second thread, from a private memory area associated with a first thread (column 4, line 67 to column 5, lines 1-20)
- and copying an address of a descriptor into a buffer utilized by the second thread, in part, to copy data from the memory area associated with the first thread (column 5, lines 11-20).

**Per Claim 19 (as best understood):**

The Poulsen patent discloses:

- further comprising creating a descriptor utilized, in part, by the second thread to copy data into the memory area associated with the second thread (column 5, lines 11-14).

**Per Claim 20 (as best understood):**

The Poulsen patent discloses:

- further comprising setting a signal by the first thread enabling the second thread to copy the data from the memory area associated with the first thread (column 6, lines 64-67 to column 7, lines 1-6).



**Per Claim 21 (as best understood):**

The Poulsen patent discloses:

- further comprising entering a wait state by the first thread until the second thread copies the data from the memory area associated with the first thread (column 6, lines 64-67 to column 7, lines 1-6).

**Per Claims 22, 23-24 (as best understood) & 25-28:**

These are apparatus versions of the claimed method discussed above (claims 1-6 & 8, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including “a memory including a shared memory location” (column 8, lines 28-45). Thus, accordingly, these claims are also anticipated by Poulsen.

**Per Claim 29:**

The Poulsen patent discloses:

- wherein the first descriptor is passed to the first program unit (column 8, lines 46-51).

**Per Claim 30:**

The Poulsen patent discloses:

**- wherein the translation unit translates the first program unit, in part, into a second program unit in source code format and the second program unit includes the memory copy operation (column 8, lines 28-39).**

### *Conclusion*

10. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Thursdays from 8:30 AM to 6:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (571) 272-3719. The fax phone number for the organization where this application or processing is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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QN

December 4, 2004

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

**TODD INGBERG  
PRIMARY EXAMINER**